



Dell Precision R7610

The world's most powerful rack workstation

Why a rack? Because your work demands it.

When the job calls for more security and flexibility than a standard tower or mobile workstation can provide, the Dell Precision R7610 rack workstation delivers.

- For organizations where security is top priority, you need more than a lock and key. The Dell Precision R7610 can help safely house your intellectual property by keeping it contained in the data center.
- Does your work involve inhospitable, hazardous or extremely remote environments? The Dell Precision R7610 can provide workstation-class performance remotely while your employees stay productive and comfortable at their own workspaces.
- For end users who work in space-constrained areas or temperature- or noise-sensitive environments, the Wyse P25 is small and runs cool and quiet.
- Boost productivity and help improve ROI among offsite contractors, rotating workforces and geographically diverse employees.
- Extend ROI with workstation virtualization for up to four users via GPU pass-through with certified hypervisors.

Flexible deployment for 1:1 or virtualized environments

You'll discover a great deal of deployment flexibility in the rack-based Dell Precision R7610:

- For maximum performance, deploy it as a one-to-one workstation solution using the optional Wyse P25 zero client device. This solution uses Teradici™ Tera2 hardware-based compression and the PCoIP protocol for remote connectivity providing a superb, responsive workstation experience.
- For virtualized Citrix environments, you can extend your productivity and security benefits to multiple users by deploying this workstation as a one-to-three or one-to-four GPU pass-through solution.
- Later this year, you can expect even greater scalability and return on investment with one-to-many virtualized deployment capability.

ISV Certification

Independent Software Vendor (ISV) Certification² is your peace of mind that the Dell Precision workstations you purchase are capable of running the high-performance applications you rely on each day. ISV certification is the result of hundreds of engineering hours and rigorous testing that have been poured into Dell Precision workstations to optimize performance with leading industry applications.

Peak performance and smart design

The Dell Precision R7610 offers the same power and scalability found in our highest-performing tower workstations with the convenience of a slim 2U design:

- Take on the toughest jobs with up to two 8-core Intel® Xeon® E5-2600 series processors.
- Maintain peak performance with the Dell Precision Performance Optimizer: the world's first automated workstation performance tool that provides automatic performance optimization, system maintenance, and tracking & reporting.
- Achieve amazing graphics performance via 3 PCIe x16 Gen 3 225W double-wide slots supporting up to ultra-high-end workstation-class NVIDIA® Quadro, AMD FirePro™ or NVIDIA Tesla GPGPU cards⁵.
- Multitask with up to 256GB^{1,4} of RAM in 16 DIMM slots (up to 512GB coming soon).
- Maintain uptime through optional redundant power supplies.
- The integrated LSI SATA/SAS controller can support up to six 2.5" hard drives for maximum storage capability

Memory you can count on

You keep working, no matter what challenges you face. Dell's exclusive, patented Reliable Memory Technology Pro helps ensure that your workstations will too. This technology maximizes uptime by eliminating virtually all memory errors so the workstations can become more reliable over time, providing a stable and reliable platform you can trust. RMT Pro works in conjunction with error-correcting code (ECC) memory to detect and isolate memory errors. With a simple system reboot, RMT isolates the defective area in memory essentially hiding it from the workstation by marking it unusable.



	Dell Precision R7610 Rack Workstation Technical Specifications									
Processors	One or two; Intel® Xeon® processor E5-2600 family with up to eight cores and Intel Advanced Vector Extensions, Intel Trusted Execution Technology, Intel AES New instructions, Optimized Intel Turbo Boost and optional Intel vPro™ technology									
Operating System	• Windows® 8 Ultimate (64-Bit) • Genuine Windows® 7 Ultimate 64-Bit; Genuine Windows® 7 Ultimate 32-Bit • Genuine Windows® 7 Professional 64-Bit; Genuine Windows® 7 Professional 32-Bit • Red Hat® Enterprise Linux® WS v.6.4 EM64T (Also certified to run Red Hat Enterprise Linux Version 5.8 64-Bit) • Ubuntu 12.04 Linux (China only)									
Chipset	Intel C602									
Memory ^{1,4}	Quad channel; up to 256GB 1600MHz ECC RDIMM memory; 16 DIMM slots (8 per processor); (up to 512GB coming soon)									
Graphics ⁴	Support for up to four ⁵ PCI Express® x16 Gen 2 or Gen 3 cards up to 675W (total for graphics (some restrictions apply ⁵)): <table><tr><td>High End 3D NVIDIA® Quadro® K5000</td><td>Mid-range 3D AMD FirePro™ W5000 NVIDIA Quadro K4000 NVIDIA Quadro K2000</td><td>Entry 3D NVIDIA Quadro K600</td><td>Professional 2D (not ISV certified) AMD FirePro 2270 NVIDIA Quadro NVS™ 510 NVIDIA Quadro NVS 310</td></tr></table>				High End 3D NVIDIA® Quadro® K5000	Mid-range 3D AMD FirePro™ W5000 NVIDIA Quadro K4000 NVIDIA Quadro K2000	Entry 3D NVIDIA Quadro K600	Professional 2D (not ISV certified) AMD FirePro 2270 NVIDIA Quadro NVS™ 510 NVIDIA Quadro NVS 310		
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GPU	One or two NVIDIA Tesla® K20C GPGPU ⁵ - Supports Nvidia Maximus™ technology									
Virtualization	Workstation virtualization for up to four users via GPU pass-through on select configurations with certified hypervisors									
Storage Options ⁶	• Up to six 2.5" SATA or SAS drives: <table><tr><td>SATA 7200RPM Up to 1.0TB</td><td>SAS 10K RPM Up to 900GB</td><td>SAS 15K RPM 146GB (300GB coming soon)</td><td>SSD Up to 512GB</td></tr></table> • 350GB PCIe SSD (not a bootable device)				SATA 7200RPM Up to 1.0TB	SAS 10K RPM Up to 900GB	SAS 15K RPM 146GB (300GB coming soon)	SSD Up to 512GB		
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Storage Controller	Integrated: LSI 2308 6Gb/s SATA, SAS controller that supports host-based (software) RAID 0, 1, 10 Optional: LSI 8271-8i 6Gb/s SATA, SAS hardware RAID controller with 1GB onboard cache supports RAID 0, 1, 5, 10									
Communications	Integrated: Intel 82579 Gigabit Ethernet controller with Remote Wake UP, PXE and Jumbo frames support Optional: Intel Ethernet Server Adapter X520-T2 10GbE (PCIe card)									
Remote Access	Optional Tera2 dual display PCoIP™ PCIe remote access host card									
Audio	Integrated Realtek ALC269Q High Definition Audio									
Standard Ports	<table><tr><th>Front</th><th>Internal</th><th>Rear</th></tr><tr><td>2 - USB 2.0 1 - System ID Button/LED</td><td>1 - USB 2.0</td><td>4 - USB 2.0 2 - USB 3.0 (optional PCIe card) 1 - Audio out 1 - Audio in 1 - Serial 2 - RJ45 1 - System ID Button/LED</td></tr></table>				Front	Internal	Rear	2 - USB 2.0 1 - System ID Button/LED	1 - USB 2.0	4 - USB 2.0 2 - USB 3.0 (optional PCIe card) 1 - Audio out 1 - Audio in 1 - Serial 2 - RJ45 1 - System ID Button/LED
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2U Rack Chassis	HxWxD: 3.40" x 17.35" x 29.67" (31.21" with bezel); 86.3mm x 440.6mm x 753.6mm (792.7mm with bezel) Bays: Six external 2.5" bays; one external 5.25" slimline optical drive bay Slots: Up to five PCIe Gen 3 full-length, full-height slots; one PCIe x8 Gen 2 (wired x4) half-height, low profile, motherboard slot • Outer riser: two PCIe x16 Gen 3 (one double wide), one PCIe x16 Gen 3 (wired x4) • Center riser: choose one of the following options: — one PCIe x16 Gen 3, one PCIe x16 Gen 3 (wired x8), (default riser option; 2nd CPU required to enable these slots) — one PCIe x16 Gen 3 (2nd CPU required to enable this slot), one legacy 32-bit PCI Power Supply options: One or two, redundant, hot-pluggable, 90% efficient, power supplies: 1100W or 1400W (220V)									
Monitors	Dell UltraSharp series - Award-winning high-performance monitors with PremierColor (on select models) and ultrawide viewing, from 21.5"-30". Dell Professional series monitors available from 17"-24".									
Keyboard	Dell Smartcard Keyboard; Dell Business Multimedia Keyboard.									
Mouse	Dell USB Optical Mouse; Dell Laser USB 6-Button Mouse.									
Speakers	Dell 2.0 and 2.1 stereo speaker systems available; Dell sound bar for select flat-panel displays.									
Optical drive	Tray load options: DVD-ROM; DVD+/-RW; Blu-ray									
Security Options ⁷	Trusted Platform Module 1.2 (TPM 1.2); Intrusion switch; Setup/BIOS Password; I/O Interface Security; Kensington® lock slot, Padlock ring, Internal bezel lock; lockable power supply; Dell Data Protection (DDP): DDP Security Tools for advanced authentication; DDP Protected Workspace for malware; DDP Encryption for data protection									
Environmental and Regulatory	Environmental standards (eco-labels) include: China - RoHS, CEC; EU - RoHS, WEEE; Germany - GS Mark; South Korea - RoHS; Japan - RoHS, Energy Law. For a complete listing of declarations and certifications, see Dell's regulatory and compliance homepage at dell.com/regulatory_compliance									
Warranty, Service and Support	Base: 3-Year Limited Hardware Warranty ⁸ with 3-year standard Onsite Service after Remote Diagnosis ⁹ Recommended: Dell ProSupport ³ is designed to rapidly respond to your business's needs, help protect your investment and sensitive data and provide enhanced proactive support services to help reduce risk and complexity within your environment									

Learn more at dell.com/precision

OEM ready models available: Learn more about custom-branded solutions at Dell.com/OEM.

- A 64-bit OS is required to support 4GB or more of system memory. Max memory with Windows 7 is 192GB. Greater than 192GB requires RHEL 6.4 or Windows 8 64Bit
- ISV certification applies to select configurations
- Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicesdescriptions
- GB means 1 billion bytes and TB equals 1 trillion bytes; significant system memory may be used to support graphics, depending on system memory size and other factors
- Maximum of four single wide graphics cards or three double wide 150W or 225W graphics cards. Configurations using greater than 450W for graphics require 1400W (220V, NEMA 6-15P plug) power supply, and are limited to 135W maximum processors.
- GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.
- Some options available only in select regions
- For copy of Ltd Hardware Warranty, write Dell USA LP, Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see www.dell.com/warranty
- Remote Diagnosis is determination by online/phone technician of cause of issue; may involve customer access to inside of system and multiple or extended sessions. If issue is covered by Limited Hardware Warranty www.dell.com/warranty and not resolved remotely, technician and/or part will be dispatched, usually within one business day following completion of Remote Diagnosis. Availability varies. Other conditions apply. Dell is a trademark of Dell Inc. ©2013 Dell Inc. All rights reserved.

